

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. Claims 1, 3, 4 and 14 are amended.

1. (Currently Amended) A syringe comprising:

a chamber for receiving a plunger of an actuator, the plunger being movable axially with respect to the chamber when the actuator is operated;

a connector to be fixed relative to the chamber and to facilitate entry of the plunger into the chamber, and

a viscoselective high pressure seal associated with the plunger comprising a seal member, wherein at least one aperture extends longitudinally within the tip portion of the plunger from distally of the seal member to proximally thereof and passing under the seal member, the aperture being sufficiently small to inhibit passage of viscous material.

2. (Original) The syringe of claim 1, wherein the connector includes an advancement mechanism movable between first and second positions to engage with and disengage from the actuator for providing for both incremental advancement of the plunger in the chamber, and free axial movement thereof, respectively.

3. (Currently Amended) The syringe of claim 1, wherein the ~~plunger comprises a distal tip portion adapted to define the viscoselective high pressure seal, the distal tip portion comprising a seal member therearound~~ is so sized for its radially outwardly directed surface to assuredly sealingly engage an inside surface of the chamber during an application procedure but be movable therealong during actuation of the plunger.

4. (Currently Amended) The syringe of claim 3, wherein the at least one relatively small aperture ~~extends longitudinally within the plunger tip portion from distally of the seal member to proximally thereof, passing under the seal member, the aperture being sufficiently small to effectively inhibit passage of viscous material therealong and define~~ defines an air escape vent.
5. (Original) The syringe of claim 3, wherein the seal member is an O-ring of material having a limited resilience.
8. (Original) The syringe of claim 3, wherein the plunger distal tip portion comprises a circumferential seal seat just proximally of a distal end thereof in which is disposed the seal member.
9. (Original) The syringe of claim 8, wherein the seal seat has a geometry that provides for escape of air between the seal member and the seat bottom surface.
10. (Original) The syringe of claim 8, wherein the seal seat permits slight axial movement of the seal member within the seal seat.
11. (Original) The syringe of claim 8, wherein small vents extend longitudinally from distally of the seal member to proximally thereof prior to the seal member being urged to a most proximal position by viscous material during actuation of the plunger.
14. (Currently Amended) A syringe comprising:
- a chamber extending to a distal tip portion and having a proximal end adapted to receive thereinto an actuator that is movable axially with respect to the chamber;
- an actuator having a plunger extending to a distal tip portion associated with the chamber distal tip portion, and further having an actuation section at a proximal end of the plunger; wherein the distal tip portion of the plunger is adapted to define a viscoselective high pressure seal with respect to the chamber distal dip portion, the

plunger distal tip portion comprises a circumferential seal seat just proximally of a distal end thereof in which is disposed a seal member, the seal seat has a geometry that provides for escape of air between the seal member and the seat bottom surface;
and

a connector affixable to the chamber for enabling connection of the actuator to the chamber, wherein the connector includes an advancement mechanism adapted to be moved between first and second positions to engage with and disengage from the actuator for providing for both incremental advancement of the plunger in the chamber, and free axial movement thereof, respectively.

15. (Original) The syringe of claim 14, wherein the advancement mechanism has threaded surfaces to cooperate with corresponding threaded surfaces on the plunger when engaged, so that the plunger is constrained to move longitudinally only incrementally with respect to the connector and the chamber as the actuation section is rotated.

16. (Original) The syringe of claim 15, wherein the connector is rotatable between first and second positions and the threaded surfaces are defined on deflectable sections where, in the first position, the threaded sections have been deflected radially inwardly by a cam of the connector to engage the plunger threads, and where, in the second position, the threaded sections have disengaged from the cam and resile radially outwardly to be disengaged from the plunger allowing the plunger to be movable freely longitudinally.

17. (Previously Presented) A syringe comprising:

a chamber extending to a distal tip portion and having a proximal end adapted to receive thereinto an actuator that is movable axially with respect to the chamber;

an actuator having a plunger extending to a distal tip portion associated with the chamber distal tip portion, and further having an actuation section at a proximal

end of the plunger, wherein the distal tip portion of the plunger is adapted to define a viscoselective high pressure seal with respect to the chamber distal dip portion; and

a connection affixable to the chamber for enabling connection of the actuator to the chamber,

wherein the plunger distal tip portion comprises a seal member therearound so sized for its radially outwardly directed surface to assuredly sealingly engage an inside surface of the chamber during an application procedure but be movable therealong during actuation of the plunger, and

wherein at least one very small aperture extends longitudinally within the plunger tip portion from distally of the seal member to proximally thereof, passing under the seal member, the aperture being sufficiently small to effectively inhibit passage of viscous material.

19. (Original) A syringe comprising:

a chamber extending to a distal tip portion and having a proximal end adapted to receive thereinto an actuator that is movable axially with respect to the chamber;

an actuator having a plunger extending to a distal tip portion associated with the chamber distal tip portion, and further having an actuation section at a proximal end of the plunger, wherein the distal tip portion of the plunger is adapted to define a viscoselective high pressure seal with respect to the chamber distal dip portion; and

a connector affixable to the chamber for enabling connection of the actuator to the chamber,

wherein the plunger distal tip portion comprises a seal member therearound so sized for its radially outwardly directed surface to assuredly sealingly engage an inside surface of the chamber during an application procedure but be movable therealong during actuation of the plunger,

wherein the plunger distal tip portion comprises a circumferential seal seat just proximally of a distal end thereof in which is disposed the seal member, and

wherein the seal seat has geometry that provides for escape of air between the seal member and seat bottom surface.

20. (Original) A syringe comprising:

a chamber extending to a distal tip portion and having a proximal end adapted to receive thereinto an actuator that is movable axially with respect to the chamber;

an actuator having a plunger extending to a distal tip portion associated with the chamber distal tip portion, and further having an actuation section at a proximal end of the plunger, wherein the distal tip portion of the plunger is adapted to define a viscoselective high pressure seal with respect to the chamber distal dip portion; and

a connector affixable to the chamber for enabling connection of the actuator to the chamber,

wherein the plunger distal tip portion comprises a seal member therearound so sized for its radially outwardly directed surface to assuredly sealingly engage an inside surface of the chamber during an application procedure but be movable therealong during actuation of the plunger,

wherein the plunger distal tip portion comprises a circumferential seal seat just proximally of a distal end thereof in which is disposed the seal member, and

wherein the seal seat permits slight axial movement of the seal member within the seal seat and wherein small vents extend longitudinally from distally of the seal member to proximally thereof prior to the seal member being urged to a most proximal position by viscous material during actuation of the plunger.